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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,273	11/09/2001	Rene Bemmer	RBL0081	3931
7590		12/12/2005	EXAMINER	
Baker & Daniels		ROBERTS, BRIAN S		
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111 East Wayne Street		PAPER NUMBER		
Fort Wayne, IN 46802		2662		

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. ^{UK}

09/936,273

Applicant(s)

BEMMER ET AL.

Examiner

Brian Roberts

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-34 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 21-34 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 13 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

- Applicant's Amendment filed 10/13/2005 is acknowledged.
- The replacement drawings filed 10/13/2005 are approved.
- Claims 1-20 have been canceled.
- Claims 21-34 have been added.
- Claims 21-34 remain pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 22, 23, 26, 31-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In reference to claims 22 and 23

Claims 22 and 23 recite the limitation "the process". There is insufficient antecedent basis for this limitation in the claim.

- In reference to claims 26, 31-33

Line 3 of claim 26, line 3 of claim 31, line 2 of claim 32, and line 1 of claim 33 recite the limitation "the mobile station". It is unclear which mobile station of the two mobile stations recited in claim 21 the limitation is referring to.

- In reference to claim 26

Claim 26 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. It is unclear which network element is performing measurements to obtain the measurement values. The examiner infers for the purpose of examination that the base stations are performing the measurements. Accordingly the omitted steps are: The transfer of the measurement values as measured by the base station to the mobile station in order for the mobile station to decide whether to change the codec operating mode.

- In reference to claim 34

Line 3 of claim 34 recites the limitation "the associated mobile station". It is unclear which mobile station of the two mobile stations recited in claim 21 the limitation is referring to. Line 4 of claim 34 recites the limitation "the radio network controller RNC transmitting to other radio network controllers involved in the transmission". The term "transmitting" is indefinite because the claim fails to state what is being transmitted. The

claim needs to clearly define what is being transmitted so one of ordinary skill in the art would be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 21-23, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruhn (US 6452941) in view of Navaro et al. (US 6108560)

- In reference to claim 21

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that includes:

- A mobile station dynamically changing the speech coding/channel coding combination according to the channel conditions (column 3 lines 28-32)

Bruhn does not explicitly teach a system or method where a second mobile station changes its codec operating mode in response to a first mobile station changing its codec operating mode.

Navaro et al. teaches a system and method of maintaining a wireless communication link between two radio stations which each communicates with a respective base station by the use of a selected one of several codecs. When the link conditions change, the radio stations signal to each other the codec modes supported

and select an appropriate codec mode based on the signaling information whereby the quality of the link is maximized. (column 3 lines 36-47)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of Bruhn to include a second mobile station changing its codec operating mode in response to a mobile station changing its codec operating mode as taught by Navaro because it would allow the mobile stations to continue to maximize the quality of the link even when the link circumstances change.

- In reference to claim 22, as best understood

The combination of Bruhn and Navaro et al. teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches:

- Using speech coding/channel coding mode which provides for a low bit rate speech coding technique coupled with a relatively high degree of error (more robust codec operating mode) protection when channel conditions are poor (column 3 lines 35-38)

- In reference to claim 23, as best understood,

The combination of Bruhn and Navaro et al. teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches:

- Using speech coding/channel coding mode which provides for a high source coding bit rate and a relatively low degree of error protection (less robust codec operating mode) when channel conditions are good (column 3 lines 28-33)

- In reference to claim 30

The combination of Bruhn and Navaro et al. teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. In Figure 1, Bruhn further teaches a method that provides for a plurality of mobile stations in a CDMA network using different codec modes in the uplink and downlink directions.

5. Claims 24, 26-29 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable Bruhn (US 6452941) in view of Navaro et al. (US 6108560), as applied to the parent claim, and further in view of Wallentin (US 6233222).

- In reference to claim 24 and 26, as best understood

The combination of Bruhn and Navaro et al. teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. The combination of Bruhn and Navaro et al. teaches initially selecting a codec operating mode and changing the codec operating mode according to the link conditions. (Navaro et al. column 3 lines 36-47)

The combination of Bruhn and Navaro et al. does not explicitly teach the RNC deciding to change the operating mode based on information reported to the RNC from Node-Bs associated with the RNC.

Wallentin teaches the RNC selecting the connection to be adjusted and the adjustment value based on information gathered via base stations. (abstract; Figure 1)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Bruhn and Navaro et al. to include a RNC making a decision as taught by Wallentin because the RNC provide for a central location to evaluate signal quality measurements and to recommend adjustments according to the signal quality measurements.

- In reference to claim 27, 28, and 31, 32, 33, as best understood

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches a mode indicator transmitted with the payload data to inform the receiver of the particular codec scheme (abstract) used for the particular frame.

Bruhn does not explicitly teach outband or inband signaling to regarding a change in codec operating mode.

In Figure 9, Navaro et al. teaches utilizing inband and outband signaling to set up a codec mode and in order to change the current codec mode. (column 15 line 54-column 16 lines 25)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Bruhn to include utilizing inband and outband signaling to in order to change the current codec mode as taught by Navaro et al. because it would allow the first and second mobile stations to continue to maximize the quality of the communications link even when the initial link circumstances change.

The combination of Bruhn and Navaro et al. teaches a system and method that covers substantially all limitations of the parent claim.

The combination of Bruhn and Navaro et al. does not explicitly teach an RNC employing the outband and the inband signaling.

Wallentin teaches a CDMA system with a RNC signaling information to mobile stations via base stations in order to select a connection to adjust and the adjustment value based on information gathered via base stations. (abstract; Figure 1)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Bruhn and Navaro et al. to include the RNC in a CDMA system performing the outbound and inbound signaling as taught by Wallentin because the outbound and inbound signaling from the RNC system would allow for a centralized location in order recommend connection parameters such as a codec operating mode to the mobile stations based upon the link quality and level of severity of congestion.

- In reference to claim 29

The combination of Bruhn and Navaro et al. teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim. Bruhn further teaches:

- In Figure 6, a frame with a Mode indication (MI) to indicate the codec mode in order for the mobile station to decode the payload information (column 9 lines 5-10)
- In Figure 6, a frame with a Mode request (MR) to indicate the codec mode with which the mobile station should transmit to the base station on the uplink (column 8 lines 63-66)

Bruhn does not teach signaling to select the codec operating mode.

In Figure 9, Navaro et al. teaches utilizing inband and outband signaling to set up a codec mode and in order to change the current codec mode. (column 15 line 54-column 16 lines 25)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Bruhn to include utilizing inband and outband signaling to in order to change the current codec mode as taught by Navaro et al. because it would allow the first and second mobile stations to continue to maximize the quality of the communications link even when the initial link circumstances change.

The combination of Bruhn and Navaro et al. teaches a system and method that covers substantially all limitations of the parent claim.

The combination of Bruhn and Navaro et al. does not teach signaling between an RNC and a base station.

Wallentin teaches a CDMA system with the RNC signaling information to mobile stations via base stations in order to select a connection to adjust and the adjustment value based on information gathered via base stations. (abstract; Figure 1)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Bruhn and Navaro et al. to include the RNC of the CDMA system signaling to the mobile user via base stations as taught by Wallentin because the RNC would provide for a central location to evaluate codec operating modes and recommend or facilitate a change in the codec operating mode of the mobile stations.

- In reference to claim 34, as best understood

Bruhn teaches a method for alternating transmission of codec mode information (abstract) in a CDMA system (column 4 lines 58-65) that covers substantially all limitations of the parent claim.

Bruhn does not explicitly teach outband or inband signaling to regarding a change in codec operating mode.

In Figure 9, Navaro et al. teaches utilizing inband and outband signaling to set up a codec mode and in order to change the current codec mode. (column 15 line 54-column 16 lines 25)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the system and method of Bruhn to include utilizing inband and outband signaling to in order to change the current codec mode as taught by Navaro et

al. because it would allow the first and second mobile stations to continue to maximize the quality of the communications link even when the initial link circumstances change.

The combination of Bruhn and Navaro et al. does not explicitly teach a RNC transmitting to other RNCs involved in the transmission.

Wallentin teaches RNCs in a CDMA network exchanging control information amongst each other indicating congested areas and adjustment values for a selected area. (abstract)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the method of the combination of Bruhn and Navaro et al. to include RNCs exchanging control information amongst each other as taught by Wallentin because it would allow for a RNC serving a first mobile station to relay a change in the codec operating mode to an RNC serving a second mobile station.

6. Claims 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bruhn (US 6452941) in view of Navaro et al. (US 6108560), as applied to the parent claim, and further in view of Willars (US 6507567).

- In reference to claim 25

The combination of Bruhn and Navaro et al. teaches a method that covers substantially all limitations of the parent claim.

The combination of Bruhn and Navaro et al. does not teach a RNC selecting a physical channel.

In Figure 5, Willars teaches a RNC in a CDMA network allocating radio resources (physical channel) to be used by the mobile station. (column 10 lines 53-55)

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the combination of Bruhn and Navaro et al. to include the RNC allocating radio resources to the mobile station as taught by Willars when there is a change of the codec mode because it provides for a centralized element to dynamically optimize the connection between the first and second mobile stations in the CDMA network.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are:

- Bruhn (US 6256487) teaches a multiple mode transmitter using multiple speech/channel coding modes wherein the coding mode is conveyed to the receiver with the transmitted signal.
- Le Strat et al. (US 6134220, US 6456598, US 6646995) teaches a method of adapting the air interface and mobile radio system and corresponding base transceiver station, mobile station and transmission mode.
- Abe (US 6282174) teaches a mobile communication system utilizing a plurality of encoding methods.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Roberts whose telephone number is (571) 272-3095. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BSR
12/01/2005



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